



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0802; Project Identifier AD-2021-01094-R]

RIN 2120-AA64

Airworthiness Directives; Bell Textron Inc. Helicopters and Various Restricted Category Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for certain Bell Textron Inc. Model 204B, 205A, and 205A-1 helicopters and various restricted category helicopters. This proposed AD was prompted by a report of cracked main rotor blades (MRBs). This proposed AD would require repetitive inspections of each MRB and removing any cracked MRB from service. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Bell Textron, Inc., P.O. Box 482, Fort Worth, TX, 76101, United States; phone: (800) 363-8023; website:

<https://www.bellflight.com/support/>. You may view this referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0802; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Hye Yoon Jang, Aerospace Engineer, Delegation Oversight Section, DSCO Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5190; email hye.yoon.jang@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2022-0802; Project Identifier AD-2021-01094-R” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Hye Yoon Jang, Aerospace Engineer, Delegation Oversight Section, DSCO Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5190; email hye.yoon.jang@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA proposes to adopt a new AD for certain Bell Textron Inc., Model 204B, 205A, and 205A-1 helicopters and the following restricted category helicopters:

- Model HH-1K helicopters; current type certificate holders include, but are not limited to, Rotorcraft Development Corporation;
- Southwest Florida Aviation International, Inc., Model SW205A-1 helicopters;
- Model TH-1F helicopters; current type certificate holders include, but are not limited to, Robinson Air Crane Inc.; Rotorcraft Development Corporation; and Tamarack Helicopters, Inc.;
- Model TH-1L helicopters; current type certificate holders include, but are not limited to, Bell Textron Inc.; Overseas Aircraft Support, Inc.; and Rotorcraft Development Corporation;
- Model UH-1A helicopters; current type certificate holders include, but are not limited to, Richards Heavylift Helo, Inc.;
- Model UH-1B helicopters; current type certificate holders include, but are not

limited to, International Helicopters, Inc.; Overseas Aircraft Support, Inc.; Red Tail Flying Services, LLC; Richards Heavylift Helo, Inc.; Rotorcraft Development Corporation; Southwest Florida Aviation International, Inc. (helicopters with an SW204 or SW204HP designation are Southwest Florida Aviation International, Inc., Model UH-1B helicopters); and WSH, LLC (type certificate previously held by San Joaquin Helicopters);

- Model UH-1E helicopters; current type certificate holders include, but are not limited to, Bell Textron Inc.; Overseas Aircraft Support, Inc.; Rotorcraft Development Corporation; Smith Helicopters; and West Coast Fabrications;

- Model UH-1F helicopters; current type certificate holders include, but are not limited to, AST, Inc.; California Department of Forestry; Robinson Air Crane, Inc.; Rotorcraft Development Corporation; and Tamarack Helicopters, Inc.;

- Model UH-1H helicopters; current type certificate holders include, but are not limited to, Arrow Falcon Exporters Inc.; Global Helicopter Technology, Inc.; Hagglund Helicopters, LLC; JJASPP Engineering Services, LLC; Northwest Rotorcraft, LLC; Overseas Aircraft Support, Inc.; Richards Heavylift Helo, Inc.; Rotorcraft Development Corporation; Southwest Florida Aviation International, Inc. (helicopters with an SW205 designation are Southwest Florida Aviation International, Inc., Model UH-1H helicopters); and Tamarack Helicopters, Inc.;

- Model UH-1L helicopters; current type certificate holders include, but are not limited to, Bell Textron Inc.; Overseas Aircraft Support, Inc.; and Rotorcraft Development Corporation; and

- Model UH-1P helicopters; current type certificate holders include, but are not limited to, Robinson Air Crane, Inc.; and Rotorcraft Development Corporation.

The FAA received reports of chordwise cracks in MRB part number (P/N) 204-011-250-113. The cracks originated from the extreme trailing edge between blade station 190 and 210; this area is currently not inspected during routine maintenance. This condition, if not addressed, could result in failure of an MRB and subsequent loss of control of the helicopter.

FAA's Determination

The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Related Service Information

The FAA reviewed the following Bell Alert Service Bulletins (ASBs), each Revision A and dated October 12, 2018, and for helicopters with MRB P/N 204-011-250-001, -005, -009, -113, or -117:

- Bell ASB 204-96-49 for Model 204B helicopters, serial numbers (S/N) 2001 through 2070 and 2196 through 2199 and
- Bell ASB 205-96-67 for Model 205A and 205A-1 helicopters, S/N 30001 through 30332.

The FAA also reviewed Bell ASB UH-1H-18-20, dated October 23, 2018, for all Model UH-1H helicopters with MRB P/N 204-011-250-113 installed.

These service bulletins specify procedures for daily wipe down inspections and 25-hour inspections of the MRBs for cracks.

Proposed AD Requirements in this NPRM

This proposed AD would require, before the first flight of each day, cleaning certain areas of the upper and lower skin surfaces of each MRB with a cheesecloth. If the cheesecloth is snagged or frayed while cleaning an MRB, removing paint from the area that caused the snagging and then either visually or eddy current inspecting the area for a crack would be required. This proposed AD would also require, at intervals not to exceed 25 hours time-in-service, wiping each MRB with isopropyl alcohol and immediately after the blade dries, inspecting the area for a dark line, which is an indication that excess alcohol is bleeding out of a crack or edge void. If there is a dark line, removing paint from the area where there is a dark line and inspecting for a crack in the skin would be required. Finally, this proposed AD would require removing from service any cracked MRB.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 682 helicopters of U.S. registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this proposed AD.

Each MRB inspection would take about .5 work-hour and parts would cost \$50 for an estimated cost of \$93 per helicopter and \$63,426 for the U.S. fleet, per inspection cycle.

Replacing an MRB, if required, would take about 10 work-hours and parts would cost about \$157,815 per blade for an estimated cost of \$158,665 per MRB replacement.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and

(3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

Bell Textron Inc., and Various Restricted Category Helicopters: Docket No. FAA-2022-0802; Project Identifier AD-2021-01094-R.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to the following helicopters with main rotor blade (MRB) part number 204-011-250-001, -005, -009, -113, or -117 installed:

(1) Bell Textron Inc. Model 204B helicopters, serial numbers (S/N) 2001 through 2070 and 2196 through 2199, inclusive, certificated in any category;

(2) Bell Textron Inc. Model 205A, and 205A-1 helicopters, S/N 30001 through 30332, inclusive, certificated in any category; and

(3) Various restricted category helicopters:

(i) Model HH-1K helicopters; current type certificate holders include, but are not limited to, Rotorcraft Development Corporation;

(ii) Southwest Florida Aviation International, Inc., Model SW205A-1 helicopters;

(iii) Model TH-1F helicopters; current type certificate holders include, but are not limited to, Robinson Air Crane Inc.; Rotorcraft Development Corporation; and Tamarack Helicopters, Inc.;

(iv) Model TH-1L helicopters; current type certificate holders include, but are not limited to, Bell Textron Inc.; Overseas Aircraft Support, Inc.; and Rotorcraft Development Corporation;

(v) Model UH-1A helicopters; current type certificate holders include, but are not limited to, Richards Heavylift Helo, Inc.;

(vi) Model UH-1B helicopters; current type certificate holders include, but are not limited to, International Helicopters, Inc.; Overseas Aircraft Support, Inc.; Red Tail Flying Services, LLC; Richards Heavylift Helo, Inc.; Rotorcraft Development Corporation; Southwest Florida Aviation International, Inc.; and WSH, LLC (type certificate previously held by San Joaquin Helicopters);

Note 1 to paragraph (c)(3)(vi): Helicopters with an SW204 or SW204HP designation are Southwest Florida Aviation International, Inc., Model UH-1B helicopters.

(vii) Model UH-1E helicopters; current type certificate holders include, but are not limited to, Bell Textron Inc.; Overseas Aircraft Support, Inc.; Rotorcraft Development Corporation; Smith Helicopters; and West Coast Fabrications;

(viii) Model UH-1F helicopters; current type certificate holders include, but are not limited to, AST, Inc.; California Department of Forestry; Robinson Air Crane, Inc.; Rotorcraft Development Corporation; and Tamarack Helicopters, Inc.;

(ix) Model UH-1H helicopters; current type certificate holders include, but are not limited to, Arrow Falcon Exporters, Inc.; Global Helicopter Technology, Inc.; Hagglund Helicopters, LLC; JJASPP Engineering Services LLC; Northwest Rotorcraft, LLC; Overseas Aircraft Support, Inc.; Richards Heavylift Helo, Inc.; Rotorcraft Development Corporation; Southwest Florida Aviation International, Inc.; and Tamarack Helicopters, Inc.;

Note 2 to paragraph (c)(3)(ix): Helicopters with an SW205 designation are Southwest Florida Aviation International, Inc., Model UH-1H helicopters.

(x) Model UH-1L helicopters; current type certificate holders include, but are not limited to, Bell Textron Inc.; Overseas Aircraft Support, Inc.; and Rotorcraft Development Corporation; and

(xi) Model UH-1P helicopters; current type certificate holders include, but are not limited to, Robinson Air Crane, Inc.; and Rotorcraft Development Corporation.

(d) Subject

Joint Aircraft System Component (JASC) Code: 6210, Main rotor blades.

(e) Unsafe Condition

This AD was prompted by a report of cracks on the MRBs outside of the current inspection area. The FAA is issuing this AD to prevent a failure of an MRB. The unsafe condition, if not addressed, could result in loss of an MRB and subsequent loss of control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

(1) As of the effective date of this AD, before the first flight of each day:

(i) Using cheesecloth, clean the upper and lower skin surfaces of each MRB in the area between blade stations 100 through 215, noting any unsmooth areas and paying attention to the trailing edge and any MRB surface which snag the cheesecloth or cause it to fray, as this may be an indication of a crack or paint chip that could lead to corrosion.

(ii) If there is any unsmooth area or the cheesecloth used to clean the MRB is snagged or frayed, remove paint from the area that is unsmooth or caused the snagging or fraying (affected area) by hand sanding in a spanwise direction with an abrasive cloth or sandpaper 220 or smoother grit and either:

(A) Visually inspect the affected area for any crack using a 10X or higher power magnifying glass with a flashlight applied at an oblique angle and perpendicular to the crack orientation; or

(B) Eddy current inspect the affected area for any crack using a surface probe.

(iii) If there is any crack, before further flight, remove the MRB from service.

(2) As of the effective date of this AD, at intervals not to exceed 25 hours time-in-service, prepare the upper and lower skin surfaces of each MRB for inspection by wiping the last 4 inches of the trailing edge between blade station 100 and 215 with an isopropyl alcohol-soaked cloth and then drying the area with a clean cloth. Immediately after drying the area, using a flashlight at an oblique angle, inspect the surface for a dark line, as this is an indication that excess isopropyl alcohol is bleeding out of a crack or edge void. If there is a dark line, remove paint from the area where there is a dark line by hand sanding in a spanwise direction with an abrasive cloth or sandpaper 220 or smoother grit and inspect for a crack in the skin. If there is any crack, before further flight, remove the MRB from service.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, DSCO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (i) of this AD. Information may be emailed to: 9-ASW-190-COS@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(i) Related Information

For more information about this AD, contact Hye Yoon Jang, Aerospace Engineer, Delegation Oversight Section, DSCO Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5190; email hye.yoon.jang@faa.gov.

Issued on June 23, 2022.

Ross Landes, Deputy Director for Regulatory Operations,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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